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## Amendments to the Claims:

No claims have been amended herein. A courtesy copy of the claims are listed below.

1. (Withdrawn) A polymer, comprising units having the formula

wherein:

Q<sup>1</sup> comprises at least one aryl or heteroaryl group;

Q<sup>2</sup> comprises at least one aryl or heteroaryl group;

X1 is O bonded directly to an aryl carbon of Q1;

 $X^2$  is O bonded directly to an aryl carbon of  $Q^2$ ;

Z is a linker comprising at least one  $-(C(R^2)_2)$ - group;

Y is a single bond or a linker group;

R<sup>1</sup> is independently at each occurrence H, a halogen, an alkyl group, a heteroalkyl group, an aryl group, or a heteroaryl group;

R<sup>2</sup> is independently at each occurrence H, an alkyl group, or a heteroalkyl group; and

R<sup>3</sup> is H or a crosslinkable group.

- 2. (Withdrawn) The polymer of Claim 1, wherein Q<sup>1</sup> comprises at least two aryl or heteroaryl groups.
- 3. (Withdrawn) The polymer of Claim 2, wherein Q<sup>1</sup> comprises a methylenediphenyl group in which the methylene carbon is bonded to at least 2 phenyl groups.
- 4. (Withdrawn) The polymer of Claim 3, wherein Q<sup>1</sup> is selected from the group consisting of

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5. (Withdrawn) The polymer of Claim 1, wherein Q<sup>1</sup> comprises a polycyclic aromatic ring system or a polycyclic heteroaromatic ring system.

- 6. (Withdrawn) The polymer of Claim 1, wherein Y is a single bond, an alkene or an alkyne group.
- 7. (Withdrawn) The polymer of Claim 1, wherein Y is a ketone, a sulfone, or a phosphine oxide group.
- 8. (Withdrawn) The polymer of Claim 7, wherein Y is selected from the group consisting of

- 9. (Withdrawn) The polymer of Claim 1, wherein Q<sup>2</sup> comprises a 6-membered aromatic or heteroaromatic ring, a polycyclic aromatic ring system, or a polycyclic heteroaromatic ring system.
- 10. (Withdrawn) The polymer of Claim 9, wherein Q<sup>2</sup> comprises

- 11. (Withdrawn) The polymer of Claim 2, wherein Z is  $-(CH_2)_n$  or  $-(CH_2CH_2O)_n$ -, wherein n = 1 to 10.
- 12. (Withdrawn) The polymer of Claim 1, wherein R<sup>3</sup> is selected from the group consisting of

$$0 \downarrow R^1 \qquad 0 \downarrow R^1 \qquad R^$$

13. (Withdrawn) The polymer of Claim 1, wherein:

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Q<sup>1</sup> comprises a methylenediphenyl group in which the methylene carbon is bonded to at least 2 phenyl groups;

Q<sup>2</sup> comprises a phenyl ring;

Y is a single bond; and

Z is -CH<sub>2</sub>-

14. (Withdrawn) The polymer of Claim 13, wherein R<sup>1</sup> is fluorine.

- 15. (Withdrawn) The polymer of Claim 13, wherein R<sup>3</sup> comprises an aryl trifluorovinyl ether.
- 16. (Withdrawn) The polymer of Claim 13, wherein the methylene carbon of Q<sup>1</sup> is bonded to at least three phenyl rings.
- 17. (Original) A composition made by a process comprising a) providing a precursor composition comprising a polymer and b) crosslinking the polymer, wherein:

the polymer comprises units having the formula

wherein:

Q<sup>1</sup> comprises at least one aryl or heteroaryl group;

Q<sup>2</sup> comprises at least one aryl or heteroaryl group;

X<sup>1</sup> is O bonded directly to an aryl carbon of Q<sup>1</sup>;

 $X^2$  is O bonded directly to an aryl carbon of  $O^2$ ;

Z is a linker comprising at least one  $-(C(R^2)_2)$ - group;

Y is a single bond or a linker group;

R<sup>1</sup> is independently at each occurrence H, a halogen, an alkyl group, a heteroalkyl group, an aryl group, or a heteroaryl group;

 $R^2$  is independently at each occurrence H, an alkyl group, or a heteroalkyl group;

and

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R<sup>3</sup> is H or a crosslinkable group.

- 18. (Original) The composition of Claim 17, wherein Q<sup>1</sup> comprises at least two aryl or heteroaryl groups.
- 19. (Original) The composition of Claim 18, wherein Q<sup>1</sup> comprises a methylenediphenyl group in which the methylene carbon is bonded to at least two phenyl groups.

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20. (Original) The composition of Claim 19, wherein Q<sup>1</sup> is selected from the group consisting of

- 21. (Original) The composition of Claim 17, wherein Q<sup>1</sup> comprises a polycyclic aromatic ring system or a polycyclic heteroaromatic ring system.
- 22. (Original) The composition of Claim 17, wherein Y is a single bond, an alkene or an alkyne group.
- 23. (Original) The composition of Claim 17, wherein Y is a ketone, a sulfone, or a phosphine oxide group.
- 24. (Original) The composition of Claim 23, wherein Y is selected from the group consisting of

25. (Original) The composition of Claim 17, wherein Q<sup>2</sup> comprises a 6-membered aromatic or heteroaromatic ring, a polycyclic aromatic ring system, or a polycyclic heteroaromatic ring system.

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26. (Original) The composition of Claim 25, wherein Q<sup>2</sup> comprises

- 27. (Original) The composition of Claim 17, wherein Z is  $-(CH_2)_n$  or  $-(CH_2CH_2O)_n$ -, wherein n = 1 to 10.
- 28. (Original) The composition of Claim 17, wherein R<sup>3</sup> is selected from the group consisting of

$$0 \downarrow R^1 \qquad 0 \downarrow R^1 \qquad R^$$

- 29. (Original) The composition of Claim 17, wherein:
  - Q<sup>1</sup> comprises a methylenediphenyl group in which the methylene carbon is bonded to at least two phenyl groups;
  - Q<sup>2</sup> comprises a phenyl ring;
  - Y is a single bond; and
  - Z is  $-CH_2$ -
- 30. (Original) The composition of Claim 29, wherein R<sup>1</sup> is fluorine.
- 31. (Original) The composition of Claim 29, wherein R<sup>3</sup> comprises an aryl trifluorovinyl ether.
- 32. (Original) The composition of Claim 31, wherein crosslinking the polymer comprises heating to at least about 200 °C.
- 33. (Original) The composition of Claim 29, wherein the methylene carbon of Q<sup>1</sup> is bonded to at least three phenyl rings.

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34. (Original) The composition of Claim 17, wherein the precursor composition further comprises an additive selected from the group consisting of diepoxides, diisocyanates, diisothiocyanates, and combinations thereof.

- 35. (Original) The composition of Claim 17, wherein crosslinking is effect by heating above 200°C.
- 36. (Original) The composition of Claim 17, wherein crosslinking is effected by actinic radiation.
- 37. (Original) A device including an optical waveguide comprising the composition of Claim 17.
- 38. (Original) The device of Claim 37, wherein the optical waveguide comprises a core that includes the composition of Claim 17.
- 39. (Original) The device of Claim 37, wherein the optical waveguide comprises a clad that includes the composition of Claim 17.

(Original) The device of Claim 37, wherein the optical waveguide comprises a core and a clad, both of which comprise the composition of Claim 17.